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charitable foundation

“The Mothercare Charitable Foundation aims to help parents in the UK and worldwide meet their needs and aspirations for their children and to give their children the very best chance of good health, education, well-being and a secure start in life. With thrombosis being the number one cause of death during and immediately after birth, the Foundation trustees felt it was vital to get potentially life-saving information to pregnant women. We are delighted to be working with Lifeblood to get these valuable messages over to women who are having, or are planning to have, a baby.”

Karren Brady, The Mothercare Charitable Foundation Chairman

The Mothercare Charitable Foundation welcomes applications from registered charities and research organisations associated with the following criteria:

- Ensuring the good health and well-being of mums-to-be, new mums and their children;
- Special baby-care needs and premature births;
- Other parenting initiatives relating to family well-being.



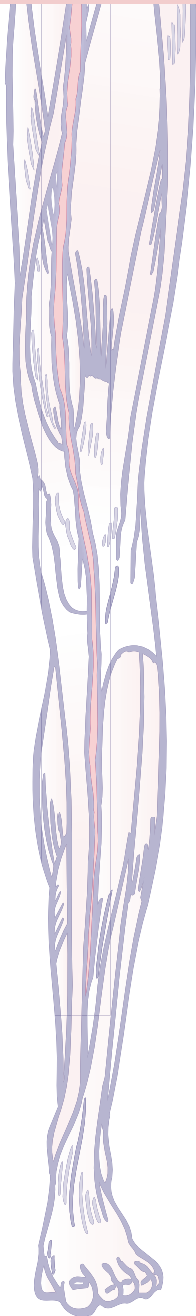
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Thrombosis & Pregnancy

A guide to risk factors and symptoms of thrombosis during pregnancy and after giving birth



When you discover you're expecting a baby, there are so many things you typically want to know: What the various stages of pregnancy mean... how your baby is developing... and how your body will react through each stage as it prepares to give birth.

One small, but possible risk to your body during pregnancy – and for up to six weeks after birth – is that of a venous thrombosis, or blood clot.

On average, one to two women in every 1,000 will get a venous thrombosis during pregnancy or just after delivery.

Although only a few women are affected, having a thrombosis can affect your health, not only during pregnancy but also in later years. For example, problems such as varicose veins are more common after a thrombosis, and the contraceptive pill should not be used if you have had a thrombosis. In addition it is also important to know that the majority of these clots can be prevented.

This booklet explains in simple question and answer format why, if you are pregnant or have just had a baby, you should be aware of risk factors and symptoms of a thrombosis. It also looks at the types of treatment available, should you experience a pregnancy-related thrombosis.

If you already have varicose veins, pregnancy can aggravate and worsen the condition. Also, if your mother had varicose vein problems during her pregnancy, you may experience similar problems since weaknesses in vein walls and valves can be inherited.

Can these conditions be treated or prevented?

In addition to helping with the treatment of venous thrombosis or DVT, **graduated compression stockings** can help prevent the risk of developing venous problems, including varicose veins.

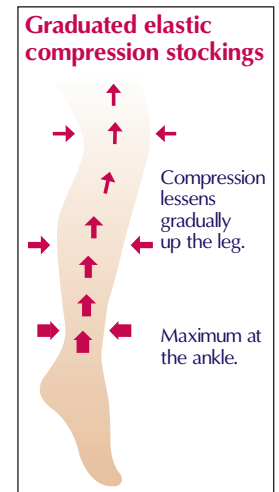
Graduated compression stockings compress the surface veins, keeping their diameter small and forcing blood into the deep vein system. It has been clinically demonstrated that controlled graduated compression applied to the lower extremities accelerates the speed at which the blood flows through the deep veins.

As the illustration on the right shows, graduated compression stockings give you maximum pressure at the ankle, with the percentage of compression reducing as they go up the leg, which is why this type of hosiery is called graduated compression hosiery (GCH). Today GCH is available in a selection of compression levels, textures and styles that are both comfortable and look good, but will also help prevent DVT and other venous problems which may affect you, especially in the latter stages of pregnancy.

Regular support hosiery that might be bought in a department store does not clinically work. This type of hosiery may make your legs feel good temporarily due to the hugging action, but they do not help return blood back up the venous system to the heart, reducing swelling and pressure in the legs.

The medical team that cares for you during your pregnancy can give you more information on, and prescribe, compression hosiery to help restore normal venous function and prevent future problems.

If you would like more detailed information on thrombosis and pregnancy, along with other pregnancy-related issues, we recommend that you visit www.mom-e.com



When the risk of thrombosis is considered very high it is usual to recommend that you wear the stockings while taking heparin.

Are there other women at risk of thrombosis in pregnancy?

Women who have several risk factors for thrombosis will also be at risk even if they have not had a clot before. This risk is particularly high after delivery and especially if the delivery is by caesarean section. The risk factors for thrombosis after a caesarean section include:

- mother's age over 35 years
- an overweight mother
- a caesarean carried out during labour
- immobility for several days prior to delivery, and
- medical conditions such as infection or paraplegia.

For some mothers with several risk factors, treatment to prevent thrombosis can be needed after a vaginal delivery or even during the pregnancy. Your doctor can advise you about the need for heparin injections after a caesarean section, but early mobilisation – getting up and about as soon as possible after a caesarean – can also reduce the risk of thrombosis.

Are there other leg conditions that affect pregnant women?

At the time of your first pregnancy you have a 20 per cent risk of developing problems with leg veins, and this doubles with future pregnancies. Not just a venous thrombosis, but also varicose, or spider veins.

Men and women of all ages can develop varicose veins, but the special changes in your body during pregnancy make you especially susceptible to this condition.

When you're pregnant hormone changes may cause vein walls to relax slightly and stretch out. Also, greater blood flow to and from the womb, along with the size and weight of your expanding tummy, puts additional pressure on the veins of your legs.



What is thrombosis?

A blood clot in the vein is called a venous thrombosis, and an example of this is deep vein thrombosis (DVT) when a blood clot occurs in a deep vein, usually in the leg. In a pregnant woman, a DVT is most often found in the leg or the pelvis.

The body has natural systems to stop excessive clotting. Some people are born with a tendency for these systems not to work properly. This gives them an increased risk of blood clots. Doctors call this thrombophilia.

Many deep venous thromboses in young women during pregnancy are the first sign of an underlying thrombophilia. Often there is a family history of thrombosis with relatives like mother, father, aunts and uncles having been affected – and this can be passed down through the generations. If you have already had a clot, or there is a family history of clotting, you may be offered a blood test to determine if you have a thrombophilia.

Why are there greater risks of blood clots during pregnancy?

Thrombosis can affect anyone, but being pregnant makes your blood more likely to clot. Doctors believe that the changes in clotting of the blood are designed to reduce bleeding at the time of normal delivery.

When you're carrying a baby there is a dramatic reduction in the speed of blood flow in your veins, which carry the blood from your legs back to the heart. Doctors think that this is due to the effect of pregnancy hormones on the veins and also because of the womb getting bigger as the pregnancy advances. The reduction in blood flow becomes obvious in pregnancy by 16 weeks and is at its most sluggish closer to full-term as your body gets ready for the actual delivery. The blood flow does not return to normal until six weeks after delivery. This sluggish flow in the veins is why many women get some swelling of the legs when they are pregnant.

It is this reduction in blood flow, combined with the increased clotting tendency while pregnant that can result in a clot in the leg. This condition can be prevented, and if it does occur, can be treated.



Also, at the time of delivery, as the baby presses on the veins in the pelvis, minor damage can occur to these veins leading to an increased risk of having a clot for up to six weeks after delivery.

What are the signs of a venous thrombosis – or DVT?

The usual symptoms of deep vein thrombosis include pain, tenderness and swelling of the leg, possible discolouration with the leg a pale blue or reddish purple colour. If the thrombosis is in the thigh veins (as is most common during pregnancy) the whole leg may be swollen. Should you experience any of these symptoms, inform your GP, midwife or obstetrician immediately.

How is a venous thrombosis, or DVT, in pregnancy treated?

The diagnosis of a DVT in pregnancy is usually confirmed by an ultrasound scan of the leg. This will usually show the blood clot in the large vein at the top of the leg. This ultrasound is the same type of scan used to check your baby's progress at various stages of your pregnancy, so it is completely safe.

Heparin

The treatment of DVT in pregnancy is similar to the treatment when you are not pregnant. A medication called heparin is given – an anticoagulant that 'thins the blood'.

Heparin does not break down a clot, it simply prevents it from getting bigger and gives your body time to gradually dissolve the clot.

Heparin can either be injected under the skin or given through the veins by a small pump that carefully controls the rate of the infusion. It cannot be given in tablet form. Blood tests may be needed to check that you are getting the right dose. Heparin cannot cross through the afterbirth so it is safe for the developing baby. Doctors are now using a new form of heparin called low molecular weight heparin (LMW Heparin). This has a very low risk of side effects for the mother compared to the older form of heparin (called unfractionated heparin), which could cause thinning of the bones in some women who took it over many months.

Women with a thrombosis who are not pregnant will be given heparin injections followed by a dose of warfarin – a tablet that continues to thin the blood. The dosage will be carefully set according to results of tests taken to determine how thin your blood is.

Where possible, doctors will avoid warfarin in pregnancy, as this could, in extreme instances, affect the baby's development or cause bleeding problems for the mother and the baby. However, both warfarin and heparin are safe to take when breast-feeding as virtually none of these medications gets into breast milk. So after delivery you can either continue the heparin or switch to warfarin. Many new mothers prefer to stay on heparin injections as this avoids the need for the regular blood tests that are needed with warfarin treatment.

Compression stockings

There are special stockings, called graduated elastic compression stockings that help to improve blood flow and reduce swelling of the legs. They are useful in treating a blood clot as they help the swelling to go down. More information about the benefits of compression stockings, which also help other leg conditions during pregnancy, can be found on page 6.

What if I'm pregnant and have had a previous venous thrombosis?

If you've suffered a venous thrombosis before, your risk of another will be increased during and just after pregnancy. The risk is particularly increased if no cause was found for the thrombosis, if you have had more than one clot, or if you have a thrombophilia. Most doctors believe that women with a previous clot should be tested for thrombophilia, which requires a simple blood test. Ideally this should be done before you become pregnant. Once pregnant you must inform your GP, midwife or obstetrician if you have had a thrombosis or if there is a history of thrombosis in your family.

If it is considered that you have a high risk of thrombosis in pregnancy your doctor may recommend that you take low molecular weight heparin injections all through the pregnancy and after delivery. Graduated elastic compression stockings may also be used, as they are very effective in preventing thrombosis. They may be used on their own or combined with heparin injections.

